WHAT IS CLAIMED IS:

1. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of pixels, each of said plurality of pixels having a plurality of memory circuits and a D/A converter.

2. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of pixels, each of said plurality of pixels having n memory circuits and a D/A converter for converting digital signals stored in said n memory circuits into an analog signal.

3. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of power supply lines;

a plurality of pixels, each of said plurality of pixels having n memory circuits and a D/A converter for converting digital signals stored in said n memory circuits into an analog signal;

a thin film transistor having a gate electrode, a source region and a drain region, said gate electrode inputted an analog signal from said D/A converter, one of said source region and said drain region connected to one of said plurality of power supply lines; and

an electroluminescence element connected to one of said source region and said drain region that is not connected to one of said plurality of power supply lines.

4. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of power supply lines;

a plurality of pixels, each of said plurality of pixels having n×m memory circuits and a D/A converter for converting digital signals stored in said n×m memory circuits into an analog signal;

a thin film transistor having a gate electrode, a source region and a drain region, said gate electrode inputted an analog signal from said D/A converter, one of said source region and said drain region connected to one of said plurality of power supply lines; and

an electroluminescence element connected to one of said source region and said drain region that is not connected to one of said plurality of power supply lines.

5. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of power supply lines;

a plurality of pixels, each of said plurality of pixels having n×m memory circuits and a D/A converter for converting digital signals stored in said n×m memory circuits into an analog signal;

a thin film transistor having a gate electrode, a source region and a drain region, said gate electrode inputted an analog signal from said D/A converter, one of said source region and said drain region connected to one of said plurality of power supply lines; and

an electroluminescence element connected to one of said source region and said drain region that is not connected to one of said plurality of power supply lines,

wherein each of the plurality of pixels stores the digital signals for m frames.

6. A portable information apparatus according to any one of claims 1 to 5, wherein the electroluminescence display device includes a source signal line, and

the memory circuits and the D/A converter are disposed to overlap with the source signal line.

7. A portable information apparatus according to any one of claims 1 to 5, wherein the electroluminescence display device includes a gate signal line, and

the memory circuits and the D/A converter are disposed to overlap with the gate signal line.

8. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of pixels, each of said plurality of pixels having:

n gate signal lines;

a plurality of source signal lines crossing said n gate signal lines;

a plurality of power supply lines disposed parallel to said n gate signal lines or said plurality of source signal lines;

n first thin film transistors, each of said n first thin film transistors having a first gate electrode, a first source region and a first drain region, said first gate electrode connected to one of said n gate signal lines, one of said first source region and first drain region connected to one of said plurality of source signal lines;

n memory circuits, an input terminal of each of said n memory circuits connected to

said one of said first source region and said first drain region;

a D/A converter connected to an output terminal of each of said memory circuit;

a second thin film transistor having a second gate electrode, a second source region and a second drain region, said gate electrode connected to an output terminal of said D/A converter and one of said second source region and second drain region connected to one of said plurality of power supply lines;

an electroluminescence element connected to one of second source region and drain region.

9. A portable information apparatus having an electroluminescence display device, said electroluminescence display device comprising:

a plurality of pixels, each of said plurality of pixels having:

n source signal lines;

a plurality of gate signal lines crossing said n source signal lines;

a plurality of power supply lines disposed parallel to said n source signal lines or said plurality of gate signal lines;

n first thin film transistors, each of said n first thin film transistors having a first gate electrode, a first source region and a first drain region, said first gate electrode connected to one of said n source signal lines, one of said first source region and first drain region connected to one of said plurality of gate signal lines;

n memory circuits, an input terminal of each of said n memory circuits connected to said one of said first source region and said first drain region;

a D/A converter connected to an output terminal of each of said memory circuit;

a second thin film transistor having a second gate electrode, a second source region

and a second drain region, said gate electrode connected to an output terminal of said D/A converter and one of said second source region and second drain region connected to one of said plurality of power supply lines;

an electroluminescence element connected to one of second source region and drain region.

10. A portable information apparatus according to claim 8, wherein the electroluminescence display device includes a source signal line driving circuit, and

the source signal line driving circuit includes shift registers, first latch circuits for holding n-bit digital signals by sampling pulses from the shift registers, second latch circuits to which the n-bit digital signals held in the first latch circuits are transferred, and switches for sequentially selecting one bit by one bit the n-bit digital signals transferred to the second latch circuits to input them to the source signal line.

11. A portable information apparatus according to claim 8, wherein the electroluminescence display device includes a source signal line driving circuit, and

the source signal line driving circuit includes shift registers, first latch circuits for holding one-bit digital signals by sampling pulses from the shift registers, and second latch circuits to which the one-bit digital signals held in the first latch circuits are transferred.

12. A portable information apparatus according to claim 9, wherein the electroluminescence display device includes a source signal line driving circuit, and

the source signal line driving circuit includes shift registers, and latch circuits for holding n-bit digital signals by sampling pulses from the shift registers.

13. A portable information apparatus according to claim 9, wherein the electroluminescence display device includes a source signal line driving circuit, and

the source signal line driving circuit includes shift registers, latch circuits for holding n-bit digital signals by sampling pulses from the shift registers, and n switches for inputting the n-bit digital signals held in the latch circuits to the n source signal lines.

14. A portable information apparatus according to any one of claims 1 to 13, wherein the memory circuit is a memory selected from the group consisting of a static memory (SRAM), a ferroelectric memory (FRAM) and a dynamic memory (DRAM).

15. A portable information apparatus according to any one of claims 1 to 14, wherein the memory circuits are formed on a substrate selected from the group consisting of a glass substrate, a plastic substrate, a stainless substrate, and a single crystal wafer.

16. A portable information apparatus according to any one of claims 1 to 15, wherein the portable information apparatus is one selected from the group consisting of a portable telephone, a personal computer, a navigation system, a PDA, and an electronic book.

17. A method of driving a portable information apparatus incorporating an electroluminescence display device including a plurality of pixels, the method comprising the steps of:

storing digital signals in a plurality of memory circuits included in each of the plurality of pixels;

reading out the stored digital signals repeatedly;

converting the repeatedly read digital signals into corresponding analog signals; and

inputting the analog signals to an electroluminescence element.

18. A method of driving a portable information apparatus according to claim 17, wherein the plurality of pixels are arranged in a matrix form, and

only the stored digital signals of the plurality of memory circuits included in a pixel at a specific row or a pixel at a specific column among the plurality of pixels are rewritten.

19. A method of driving a portable information apparatus incorporating an electroluminescence display device including a plurality of pixels and a source signal line driving circuit for inputting picture signals to the plurality of pixels, the method comprising the steps of:

storing digital signals in a plurality of memory circuits included in each of the plurality of pixels;

reading out the stored digital signals repeatedly;

converting the repeatedly read digital signals into corresponding analog signals;

inputting the analog signals to an electroluminescence element; and

stopping an operation of the source signal line driving circuit.

20. A method of driving a portable information apparatus including an electroluminescence display device and a CPU, wherein

the electroluminescence display device includes a plurality of pixels and a first circuit for outputting signals to the plurality of pixels,

the CPU includes a second circuit for controlling the first circuit,

digital signals are stored in a plurality of memory circuits included in each of the plurality of pixels,

the stored digital signals are repeatedly read out,

the repeatedly read digital signals are converted into corresponding analog signals,

the signals are inputted to an electroluminescence element, and

an operation of the second circuit is stopped.

21. A method of driving a portable information apparatus incorporating an electroluminescence display device including a plurality of pixels, and a VRAM, wherein

digital signals are stored in a plurality of memory circuits included in each of the plurality of pixels,

the stored digital signals are repeatedly read out,

the repeatedly read digital signals are converted into corresponding analog signals,

the analog signals are inputted to an electroluminescence element, and

a data readout operation of the VRAM is stopped.

22. A method of driving a portable information apparatus according to any one of claims 17 to 21, wherein one readout operation is carried out for one frame period in the plurality of memory circuits.

23. A method of driving a portable information apparatus according to any one of claims 17 to 22, wherein

the memory circuit is a memory selected from the group consisting of a static

memory (SRAM), a ferroelectric memory (FRAM) and a dynamic memory (DRAM).

24. A method of driving a portable information apparatus according to any one of claims 17 to 23, wherein

the memory circuits are formed on a substrate selected from the group consisting of a glass substrate, a plastic substrate, a stainless substrate, and a single crystal wafer.

25. A method of driving a portable information apparatus according to any one of claims 17 to 24, wherein

the portable information apparatus is one selected from the group consisting of a portable telephone, a personal computer, a navigation system, a PDA, and an electronic book.